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Claims

1. A method for inhibiting expression of an FcεRI receptor in a cell, comprising:
contacting a cell expressing an FcεRI receptor with an FcεRIβ chain variant in
an effective amount to inhibit expression of the FcεRI receptor in the cell.

2. The method of claim 1, wherein the FcεRIβ chain variant is an isolated nucleic acid
molecule that inhibits expression of an FcεRI receptor in the cell.

3. The method of claim 2, wherein the isolated nucleic acid molecule comprises the
nucleotide sequence of SEQ ID NO:3.

4. The method of claim 1, wherein the FcεRIβ chain variant is an isolated peptide
molecule that inhibits expression of an FcεRI receptor in the cell.

5. The method of claim 4, wherein the isolated peptide molecule comprises the amino
acid sequence of SEQ ID NO:4.

6. The method of claim 1, wherein the contacting occurs *in vitro*.

7. The method of claim 1, wherein the contacting occurs *in vivo*.

8. A method for inhibiting expression of an FcεRI receptor in a subject to treat a
condition mediated by IgE, comprising:

administering to a subject in need of such treatment an FcεRIβ chain variant in an
effective amount to inhibit FcεRI receptor expression in a cell of the subject.

9. The method of claim 8, wherein the condition mediated by IgE is an allergic
condition.

10. The method of claim 9, wherein the allergic condition is selected from the group
consisting of atopy, anaphylaxis, urticaria, and angioedema.

11. The method of claim 8, wherein the FcεRIβ chain variant is an isolated nucleic acid molecule that inhibits expression of an FcεRI receptor in the cell of the subject.

12. The method of claim 11, wherein the isolated nucleic acid molecule comprises the nucleotide sequence of SEQ ID NO:3.

13. The method of claim 8, wherein the FcεRIβ chain variant is an isolated peptide molecule that inhibits expression of an FcεRI receptor in the cell of the subject.

14. The method of claim 13, wherein the isolated peptide molecule comprises the amino acid sequence of SEQ ID NO:4.

15. The method according to any one of claims 8-14, further comprising co-administering an anti-allergic (anti-atopic) agent other than an FcεRIβ chain variant.

16. A method of screening for FcεRI receptor expression modulating agents, comprising:
(a) contacting a putative FcεRI receptor expression modulating agent with a cell expressing an FcεRI receptor,

(b) measuring FcεRI receptor expression by the cell, and

(c) determining whether FcεRI receptor expression by the cell is altered compared to FcεRI receptor expression by a control cell, wherein the control cell is contacted with an FcεRIβ chain variant.

17. The method of claim 16, wherein the FcεRIβ chain variant is an endogenous nucleic acid molecule of the cell.

18. The method of claim 16, wherein the FcεRIβ chain variant is a heterologous nucleic acid molecule of the cell.

19. The method according to any one of claims 17 or 18, wherein the FcεRIβ chain variant comprises the nucleotide sequence of SEQ ID NO:3.

20. The method of claim 16, wherein measuring FcεRI receptor expression in the cell comprises using an anti-FcεRI chain-specific antibody.

21. A method of screening for FcεRIβ chain variant expression modulating agents,
5 comprising:

(a) contacting a putative FcεRIβ chain variant expression modulating agent with a test cell expressing an FcεRIβ chain variant,

(b) measuring FcεRIβ chain variant expression by the cell, and

(c) determining whether FcεRIβ chain variant expression by the cell is altered
10 compared to a control cell expressing an FcεRIβ chain variant in the absence of a putative FcεRIβ chain variant expression modulating agent.

22. The method of claim 21, wherein measuring FcεRIβ chain variant expression by the cell comprises using RT-PCR.

23. The method of claim 21, wherein the control cell expresses an FcεRIβ chain variant identical to the FcεRIβ chain variant expressed by the test cell.

24. A method for inhibiting expression of an FcεRIα chain in a cell, comprising:

20 contacting a cell expressing an FcεRIα chain with an FcεRIβ chain variant in an effective amount to inhibit expression of the FcεRIα chain in the cell.

25. The method of claim 24, wherein the FcεRIβ chain variant is an isolated nucleic acid molecule that inhibits expression of an FcεRIα chain.

26. The method of claim 25, wherein the isolated nucleic acid molecule comprises the nucleotide sequence of SEQ ID NO:3.

27. The method of claim 24, wherein the contacting occurs *in vitro*.

28. The method of claim 24, wherein the contacting occurs *in vivo*.

29. A method for determining whether a subject has a condition mediated by IgE or a predisposition thereto, comprising:

determining FcεRIβ chain variant expression in a subject suspected of having a condition mediated by IgE or a predisposition thereto, and

5 comparing the FcεRIβ chain variant expression to a control,

wherein lower levels of FcεRIβ chain variant expression in the subject as compared to the control are indicative for the presence of, or a predisposition to, a condition mediated by IgE in the subject.

10 30. The method of claim 29, wherein FcεRIβ chain variant expression is mRNA expression.

31. The method of claim 29, wherein FcεRIβ chain variant expression is peptide expression.